



TWO SEVENTEENTH CENTURY "ANTIMONY CUPS."

One cup is shown in its original leather case. The polish of the lining of the other cup has been partially removed by the white wine which had stood in it for twenty-four hours.

STOLAIR THOMSON: *Antimony cups: Pocula Emetica or Calices Vomitorii.*

Section of the History of Medicine.

President—Dr. J. D. ROLLESTON.

Antimonyall Cupps : *Pocula Emetica* or *Calices Vomitorii*.

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"ANTIMONYALL CUPPS"—*Pocula Emetica* or *Calices Vomitorii*—are rarely met with nowadays. There is one in the possession of the Royal College of Physicians. It was presented to the College in 1824 by a Mr. Gurney, who had married a Miss Palmer, who was a descendant of the Dr. Baldwin Hamsey to whom it originally belonged. The short story of it, compiled by Dr. Monk, states that it was bought in Gunpowder Alley, at the sign of the Magpie, in 1637, for 50 shillings, and that three cases of death were said to have been caused by the vomiting resulting from drinking wine which had stood in these cups. There is also such a cup in the Museum of Practical Geology in Jermyn Street. It bears on one side, on a shield surmounted by a coronet, the following inscription in German: "Du bist ein Wunder der Natur und aller Menschen sichere Cur."¹ The Pharmaceutical Society does not possess a specimen; nor is there one in the admirable Wellcome Museum in Wigmore Street, although it is the largest and most complete collection in the world of objects illustrating the history of medicine.

TWO EXAMPLES.

Hence I considered myself very fortunate when the opportunity came my way to exhibit two perfect specimens before the Section of History of Medicine. The record of these two particular "Antimonyall Cupps" is brief and inadequate. For the loan of them I am indebted to my old friend Mr. A. de Navarro, a well-known connoisseur in art. Amongst other things he collects pewter, on which he has written an interesting book, and he is at present President of the Pewter Society. It was in this connexion that he secured, through a well-known silversmith in Old Bond Street, as an addition to his collection of pewter, the two cups you see before you. Pewter is an alloy of tin and lead, but there are varieties. For instance, "plate pewter" consists of 89 per cent. tin and 7 per cent. antimony, fused with 2 per cent. bismuth and copper. It takes a fine polish. "Triple pewter" contains less tin and more antimony (15 per cent.). It is used in such minor articles as toys and syringes. "Lay pewter," used for inkstands, is composed of 80 per cent. tin and 20 per cent. lead. Hence some pewters contain no antimony, and none more than 15 per cent. Each of these cups is in an old leather case beautifully tooled, and when, inside each case, Mr. de Navarro noticed a label with the words "Antimonyall Cupp" he very kindly brought them to my notice, and has lent them for your inspection. The spelling and calligraphy are of the seventeenth century, as is also the leather case—possibly of Italian workmanship (see Plate).

You will notice that these cups must have had considerable use, if we may judge from the well-worn mark on the case, made by the thumb in opening and closing it. Each cup holds between 3 and 4 ounces of liquid.

EMESIS.

Emesis, or vomiting, is a therapeutic measure of wide and ancient use. Although nowadays chiefly employed by dogs and cats to "cleanse the stuff'd bosom of that

¹ A. C. Wootton, *Chronicle of Pharmacy*, London, 1910, vol. i, p. 385.

perilous stuff which weighs upon the heart," it was a relief to which most of us had recourse, involuntarily, in the days when we were "mewling and puking in the nurse's arms." With increasing years we employ it more rarely, and chiefly during a cross-Channel journey as a preparative for, or a corrective after, a week-end in Paris.

It was not so in classical times. Seneca writes that, in the reign of Nero, many "vomited to eat and ate to vomit." Caesar, who was a temperate man, took an emetic after a heavy meal with Cicero, who mentions it without disapproval. Vitellius the glutton and Claudius habitually used emetics. But, in spite of these records, there are some students of the Roman age who say that daily vomits were not common in wider circles. The ancient Egyptians, according to Herodotus, were the healthiest of mankind, and three days in every month they used emetics and enemas. Hippocrates recommended regular vomitings and purgings. Asclepiades condemned them. Celsus disapproved of them as an aid to gluttony, but agreed that, as an occasional resource, they were conducive to health. Galen prescribed them before rather than after meals. Pliny and Plutarch only advised emetics in actual disease.

ANTIMONY.

To turn now to the metal of which these cups are made, we might recall that antimony was known to the ancients as "stibium," "barbason," or "albastrum."

As to its history, I wish time allowed me to make use of all the erudition and references so kindly placed at my disposal by our learned Fellow, Dr. Charles Singer. He tells me that the mediæval Latin word "Antimonium" was first used by Constantine, the African, who died in 1087. This Arab left North Africa for Salerno about 1070, became a monk, and translated medical works from Arabic into Latin. In one of these, the *Liber de Gradibus* (or Book of Degrees), the action of drugs is classified into four degrees, and antimony comes in the fourth or highest degree.

Many virtues were claimed for it and its derivatives. Ladies will be interested to hear that it was used in ancient times to beautify the eyebrows and give a dilated look to the eyes. Omphale, the Lydian queen who captivated Hercules, used "stimmi" for the purposes of the toilet; and it was possibly with a preparation of antimony that Jezebel "painted her face and tired her head" (2 Kings ix. 30). Anyhow, the "kohl" still used by females in Egypt and Persia is prepared from antimony.

As a remedy antimony owes its chief advance in medicine to the recommendation of Paracelsus (1480-1541), but it attracted little attention until the early part of the seventeenth century, when it was made popular by the enthusiastic writing of Basil Valentine, a monk of the Order of St. Benedict, who published at Leipzig in 1604, and in German, a work entitled "Triumph Wagen Antimonii," translated into English in 1678 under the title of "The Triumphant Chariot of Antimony." The author included antimony amongst the seven wonders of the world, and ascribed to it extraordinary virtues.

A vast literature has arisen round this Basil Valentine, but I have the authority of Dr. Singer to state that Basil Valentine the monk never existed, and that the book of which he is the reputed author was written by a certain Johann Thölde, of Hesse, a chemist and salt manufacturer. This astute chemist added to the interest and mystery by saying he had, with great labour, translated the monk's work from Latin into German. Anyhow, the work was translated into many languages, and the boom in antimony was launched and in full swing through the seventeenth century. Charles de Lorme appears to have made a huge practice and much renown by prescribing it to Henry IV, Louis XIII, Cardinal Mazarin, and Madame de Sévigné. He claimed for it that "qui plus en boira, plus il vivra" ! and it is true

that amongst his patients were Guez de Balzac who died at 70, Boileau who died at 75, and Daniel Huet who reached the age of 91, while he himself nearly became a centenarian.

As a striking example of this fulsome laudation by an unqualified practitioner I can recommend the perusal of a pamphlet published in London in 1642 by "John Evans, Minister and Preacher of God's Word, dwelling near the Golden Lyon in Fetter Lane." Its title is:—

"The Universal Medicine, or the Virtues of my Magneticall or Antimoniall Cup. Confirmed to be an health-procuring, health-preserving, and an health-restoring Effectuall Medicine.

By extant Monuments of Antiquity.

By testimonies of Honorable Personages.

By 100 admirable and rare experiments.

By 200 Persons of quality that have experienced the same."

I am sorry the Royal Society of Medicine does not possess a copy of this egregious pamphlet, but it can be seen in the Library of the Royal College of Physicians. Mr. Barlow, the Bedell, has kindly called my attention to it, pointing out how the testimonials from the "persons of quality" closely resemble those issued by quack-medicine vendors in our own day. The reverend author, who repeatedly protests that he is ready to "answer before God and Man," in regard to the "Mystical and Celestiall" qualities of his vinum antimonialie was not free from personal interest in making "a Compendious declaration of the most admirable Virtues of the Magneticall or Antimoniall Cup," for he adds that it was "compounded and made of the Philosophical composition, which is of my own proper and peculiar Invention and Preparation."

The Rev. John Evans cited "ancient Philosophers and learned Physicians" who had "written of the Medicinall vertues of this Magneticall or Antimoniall Cup," beginning with Theophrastus Paracelsus and including Basilius Valentinus. This did him no harm, as Paracelsus was dead and Basilius Valentinus had never existed. But, unfortunately, he added that "Sir Theodore Mayern, Kt., and Dr. of Physick, and Physician in Ordinary to the King's most excellent Majesty, hath approved and experienced the same oftentimes with happy and good success."

Now Turquet de Mayerne was a French (or possibly a Swiss) physician who had been "struck of the register" by the Faculty of Medicine of Paris in 1603, simply because he was a supporter of antimony, and even although he was the favourite physician of Henry IV. He settled in London, was appointed Physician to James I, became a Fellow of the Royal College of Physicians, and it has been suggested that he is portrayed by Shakespeare as "Dr. Caius" in the *Merry Wives of Windsor*. If so, it must have been a caricature, for his behaviour in regard to this unauthorized use of his name, in an advertising pamphlet by the Reverend John Evans, was very different from what one would expect from such a figure of fun as the physician in the *Merry Wives of Windsor*. De Mayerne promptly took action. There is a book written by Dr. Charles Goodall in 1684 on "The Royal College of Physicians of London," with "an Historical Account of the College's proceedings against Empiricks and unlicensed Practisers in every Princes Reign from their first Incorporation to the Murther of the Royal Martyr, King Charles the First." Well, on page 442 of this book, and under the date of "24 Martii 1634," we read the following Minute:—

"Mr. President desired that diligent search be made after the sellers of purging Diet-Ales and such Comfit-makers as sold purging confections. Dr. Mayerne wrote a Letter to Mr. President complaining of Mr. Evans a Minister who had abused his name about his Antimonial Cup; upon which 4 Fellows of The College were sent to the Archbishop of Canterbury to acquaint his Grace therewith, and with the import of Sir Theodore Mayern's

Letter. After this Evans was brought before the High Commission, where the Archbishop asked him for his Orders, which he had not then present. He then caused him to be sworn to answer such Articles as should be objected against him. His Grace was highly displeased at the printing of his Book, of which all that could be found were taken away. The College Beadle was to help to find out more, that they might be destroyed. Sir *Nathanael Kitch* died of a Vomit made by this Antimonial Cup. The Lady *Amye Blunt* died by the Same Medicine in *Charter-house* yard. Another case of the same kind was reported by Dr. *Harvey*."

This precious pamphlet of Mr. John Evans must have been largely responsible for producing in 1651 (just nine years later) a counterblast from "James Primrose, Doctor of Physick." This "learned physician" had the courage to attempt the Sisyphean task of exposing "Popular Errors, or the Errors of the People in Physick : Profitable and necessary to be read by all. To which is added by the same Author his verdict concerning the Antimoniall Cuppe."

This delightful little book can be read in our library. It gives some shrewd knocks to the Rev. John Evans in the last chapter, where Dr. Primrose writes :—

"Not that I doe altogether dislike the use of Antimonie, for I have often used it with good successe, but better prepared. But especially the founder of the Cup is to be blamed, for selling such a cheap medecine at so deare a rate, the right use whereof hee doth neither teach the people, nor I think he himself knowes."

That Evans is here referred to is clear from the next paragraph, where Dr. Primrose ironically says :

"As for the Founder of the Cup, he professes himself a Minister, and Preacher of God's Word, that is, a man that will scorn to deceive anybody and will not meddle beyond his knowledge."

The courage of Dr. Primrose is to be admired. It must have helped to the undoing of that unctuous humbug the Rev. John Evans. We may also congratulate Sir Théodore Turquet de Mayerne and the Royal College of Physicians on their successful action. The leaders and guardian bodies of the profession in those days appear to have been more successful than we are in their suppression of self-seeking frauds.

The controversy about antimony raged in Paris for over a century, dividing the profession into two camps—the antimonialists and the anti-antimonialists—causing, according to the habits of the times, the bitterest personal animosities and recriminations. It is referred to by Molière in *Le médecin malgré lui*. The vogue in the drug—fostered by writings like Basil Valentine's "Triumphal Chariot of Antimony," and Evans's "The Universal Medicine"—led to such popular recklessness in its use that the Faculté was possibly justified in declaring it a poison and reprehending its administration. In 1609 another eminent physician, Paulmier, was expelled from the Faculté for having administered antimony. This prohibition, confirmed by a solemn Act of Parliament in 1566, brought forth calmer judgments, like those of Dr. Primrose, and, possibly, confidence in the merits of the remedy was partially restored by the alleged cure of Louis XIV by tartar emetic for a dangerous illness in 1657. Anyhow, in 1666—just a century after its prohibition—another equally solemn Act rehabilitated the reputation of the metal.

POSSIBLE ORIGIN OF THESE CUPS.

I wonder if the prohibition of antimony during a whole century had anything to do with the origin of *Pocula Emetica*, *Calices vomitorii*, or Antimonial Cupps? The use and sale of the drug were interdicted by law, and knowing human nature as we do, and realizing how the banning of any man or his methods at once makes a hero of him and a panacea of his nostrum, it is possible that these cups came into being in that way. Wine being allowed to stand for some time in one of them became impregnated with tartrate of antimony, from the action of the tartar contained in the wine upon the metal of the film of oxide formed upon its surface. Now, as the

prescribing and selling of antimony was forbidden, these cups effectually set legislation at defiance, added the spice of a forbidden drink to the virtues of the draught, saved the apothecary's bill, and must have appealed to imaginative patients as an agreeable—being alcoholic—mode of administration! The cup, too, could be handed down from generation to generation, gathering increased powers of suggestion with the years.

It is said that these cups were common in monasteries, and those monks who took too much wine were punished next morning by having to drink some more which had been standing in a poculum emeticum.

AN ANCIENT RECIPE FOR ANTIMONIAL WINE.

I might explain that what in those ancient days was called "*Regulus of antimony*" is what we call metallic antimony, to distinguish it from crude antimony. Now, in Pomet's *Compleat History of Drugs*, of which the English translator says in the third edition of 1737 that it is "a work of great Use and Curiosity," we note, amongst much quaint lore, the following reference to *Pocula Emetica* on page 360 :—

"Of this *Regulus* is prepar'd the purging or rather the emetick wine : And here you ought to be caution'd to throw away the three or four first wines you make with the Cups, lest they should produce some ill Accident. Whereas most People who have Occasion for the Goblets or Cups of the *Regulus* find difficulty to come by them, let them apply to a Founder, and they will have what Sorts and Sizes they will, at a cheap Rate, without troubling themselves with Moulds, as several have done to their Labour and Cost, who have at last been oblig'd to give over the Attempt, not being able to make one Cup without a Hole or some other Defect. You may also get these same Founders to make you the perpetual Pills, or you may easily make them yourself with a Musket Ball Mould."

Perpetual Pills.—"The Pills serve for those that have the Twisting of the Guts, or *Miserere mei*, so call'd. When they are returned from out of the Body, 'tis but washing and cleansing of them again, and they'll serve as oft as you please ; which gives them the Name of Perpetual. They may also be infus'd, as well as the *Regulus* in Wine, cold, for the space of twelve Hours ; which is said to be a good Medicine for strong Constitutions."

ORIGIN OF WORD "ANTIMONY."

The original work ascribed to the mythical Basil Valentine was published in Latin under the title of "*Currus Antimonii Triumphalis*," and his name, of course, was Latinized into *Basilius Valentinus*. It is to the author's investigations with this mineral and its products, carried out in a thoroughly scientific and Teutonic fashion, that we owe the ridiculous story as to the origin of the name of Antimoine or Antimony (against monks). The origin of this title is described in Pomet's work in the following words :—

"It acquir'd the Name of Antimony, according to the Opinion of some, from a *German* monk, the aforesaid *Valentine*, who in Search after the Philosopher's stone, was wont to make much Use of it for the more ready fluxing his Metals, and throwing a Parcel of it to some Swine, he observ'd that they had eaten it, and were thereby purged very violently, but afterwards grew the fatter upon it ; which made him harbour an Opinion, that the same sort of Cathartick, exhibited to those of his own Fraternity, might do them much Service : but his Experiment succeeded so ill, that everyone who took of it died. This therefore was the Reason of this Mineral being call'd *Antimony*, as being destructive of the Monks."

CHEMICAL COMPOSITION OF THE CUP.

For the definite proof that these cups are actually made of antimony I am indebted to the kindness of Sir Herbert Jackson, K.B.E., formerly Professor of Chemistry in King's College and now Director of the British Scientific Instruments Research Association. A very small quantity of material, scraped from the bottom of one cup, was sufficient for him to apply tests which prove that the cup is made almost entirely of commercial antimony. There can only be, he reports, very small

quantities of tin and lead. The cup is a good specimen of metallic antimony. The metal is fairly hard and brittle, just as antimony is.

THEIR POWER OF PRODUCING ANTIMONIAL WINE.

Finally, to settle the question whether the antimony of which these two cups are made could be dissolved out into wine allowed to stand in them, I again had recourse to the learning and kindness of Sir Herbert Jackson ; his report is as follows :—

“The white wine which has stood in the antimonial cup for seventeen hours contains a notable amount of antimony. No quantitative determination of the amount has been made, but, looking at the antimony separated from the wine, a rough estimate would be that there is about half a grain of antimony, expressed as antimony oxide, to the ounce of wine. I lay no stress on the quantity, but what I know you were anxious to learn is whether a wine of such character standing in the antimonial cup would dissolve an appreciable amount of antimony ; it clearly does.”

As I have noted, each cup holds 3 to 4 ounces, so that the wine would contain a dose of $1\frac{1}{2}$ to 2 grains of antimony.

CONCLUSION.

In one of these cups I have had some white wine standing for exactly twenty-four hours. If anyone would like to quaff it he is very welcome to do so at his own peril. You will notice how it has removed the polish from the inside of the cup.

Having now proved the potency of these “antimonyall” porringers, we might refer the question to the Section of Therapeutics as to whether their use should not be revived in these days of intestinal stasis ? If approved of, they might, particularly if combined with the “Perpetual Pills, become popular, especially nowadays when economy and thrift are so much called for. Only our pharmaceutical friends and the manufacturers of paraffin emulsion might deplore such a revival.

In conclusion, I apologize for butting into a Section so learned as this with a communication so trivial. My excuses are based on the kindness of my friends—Mr. de Navarro, who has entrusted me with these two unique specimens of *Pocula Emetica* ; Dr. Singer, who has furnished me with so much lore on the matter ; and Sir Herbert Jackson, whose modern scientific investigations have enabled us to verify the empiric practice of three hundred years ago.

BIBLIOGRAPHY.

BALME, “Mémoire contenant quelques réflexes sur l'usage des vomitifs dans le traitement des maladies aiguës,” *Journ. de Med., Chir., Pharmacie*, Aoust, 1769, xxxi, p. 123. BASIL VALENTINE, *The triumphant Chariot of Antimony*, London, 1678. CABANÈS, *Remèdes d'Autrefois : L'antimoine*, Paris : A. Maloine, 1910. REDWOOD, “Note on *Pocula Emetica*, emetic cups, or cups of antimony,” *Pharmaceutical Journal and Transactions*, xviii, 1858-59, No. 1, p. 18. POMET, *A Compleat History of Drugs*. Written in French by Monsieur Pomet, Chief Druggist to the late French King Lewis XIV. Done into English from the Originals. The Third Edition, London, 1717. FRANCIS R. PACKARD, M.D., *Guy Patin and the Medical Profession in Paris in the XVIIth Century*. London : Oxford University Press, 1924.